

IN THE ABSTRACT

Please amend the abstract as follows:

An ultrasound imaging method and system configured to simultaneously acquire and process multi-mode and multi-band echo information from a single set of pulse firings is provided. Raw ultrasound signals are digitized and stored in an I/Q data buffer. The stored data are then parallel preprocessed as a function of frequency band or alternative encoding. Parallel preprocessing optionally includes manipulating the data in respect to different imaging modes. Outputs of the parallel preprocessors are coupled to separate echo formers used to simultaneously reconstruct various desired echo information to form a multi-mode or multi-band image. The echo formation process is optionally preformed performed in parallel.